

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-85: (Canceled).

86. (Currently Amended) A method of producing an amidated peptide product comprising the steps of:

(a) culturing a host cell transformed or transfected with an expression vector encoding a peptide product in a culture medium wherein the peptide product includes a C-terminal glycine;

(b) recovering said peptide product from said culture medium; and

(c) converting said peptide product to the amidated peptide by converting said C-terminal glycine to an amino group, wherein

said expression vector comprises a plurality of transcription cassettes, each cassette having:

(1) a coding region with nucleic acids coding for the peptide product coupled in reading frame 3' of nucleic acids coding for a signal peptide; and

(2) a control region linked operably with the coding region, said control region comprising a plurality of promoters and at least one ribosome binding site, wherein at least one of said promoters is tac.

87. (Currently Amended) A method of producing an amidated peptide product comprising the steps of:

(a) culturing an *E. coli* strain BLR host cell transformed with an expression vector which comprises a gene for expressing the a peptide product in a culture medium wherein the peptide product includes a C-terminal glycine;

(b) recovering said peptide product from said culture medium; and

(c) converting said peptide product to the amidated peptide by converting said C-terminal glycine to an amino group.

Claims 88-90: (Canceled).

91. (Original) The method of claim 86, wherein the peptide product is salmon calcitonin precursor or calcitonin gene related peptide precursor.

92. (Original) The method of claim 87, wherein the peptide product is salmon calcitonin precursor or calcitonin gene related peptide precursor.

93. (Original) The method of claim 86, wherein said conversion to amidated peptide is accomplished by:

(a) forming a reaction mixture by contacting said peptide product with oxygen and a reducing agent in the presence of peptidyl glycine α -amidating monooxygenase, or peptidyl glycine α -hydroxylating monooxygenase;

(b) if peptidyl glycine α -amidating monooxygenase is not used in step (a), and if the reaction mixture is not already basic, then increasing pH of the reaction mixture until it is basic; and

(c) recovering said amidated peptide from said reaction mixture.

94. (Original) The method of claim 87, wherein said conversion to amidated peptide is accomplished by:

(a) forming a reaction mixture by contacting said peptide product with oxygen and a reducing agent in the presence of peptidyl glycine α -amidating monooxygenase, or peptidyl glycine α -hydroxylating monooxygenase;

(b) if peptidyl glycine α -amidating monooxygenase is not used in step (a), and if the reaction mixture is not already basic, then increasing pH of the reaction mixture until it is basic; and

(c) recovering said amidated peptide from said reaction mixture.

Claim 95: (Canceled).

96. (Original) The method of claim 93, wherein recovering amidated peptide comprises at least one of the steps selected from the group consisting of cation exchange chromatography and reverse phase chromatography.

97. (Original) The method of claim 94, wherein recovering amidated peptide comprises at least one of the steps selected from the group consisting of cation exchange chromatography and reverse phase chromatography.

Claims 98-101: (Canceled).